

# Kyle Opperman

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Haarlem, NL

Front-end Architect & Engineering Lead with 13+ years of experience designing and scaling complex web applications, developer platforms, and real-time interfaces across fintech, logistics, and enterprise environments. I specialise in TypeScript, React, Web Components, system design, and cross-team technical leadership. Passionate about building high-quality software that blends performance, clarity, and usability, I thrive in environments where I can be hands-on while also setting direction, mentoring engineers, and elevating the overall engineering craft.

## Skills

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<b>Languages</b>	TypeScript, JavaScript, CSS, HTML, SQL
<b>Frameworks &amp; Libraries</b>	Lit, Web Components, React, Vue.js, Sass/SCSS, Next.js, Node.js, Knockout.js, Riot.js, jQuery, Web Components, RxJS, React Query, Redux, Vuex, <a href="#">D3.js</a> , NestJS, GraphQL
<b>Testing &amp; QA</b>	Playwright, Cypress, Jest, Karma, Vitest, Lighthouse, Sentry
<b>CI/CD &amp; Cloud</b>	Azure DevOps, AWS, GCloud, Firebase, Serverless, Docker
<b>Build Tooling</b>	Turborepo, Nx, Webpack, Rollup, Vite, Parcel, Turbopack, Lerna
<b>Other</b>	Blue Security Champion, a11y, i18n, WCAG, Backstage.io, SEO, Design Systems, Phaser, Godot, Unreal Engine

## Experience

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**Lead Software Engineer (IV), ING - Amsterdam, NL**

**Oct 2024 - Present**

*React, Lit, Web Components, a11y, i18n, Node.js, Backstage.io, Azure DevOps, TypeScript, Design Systems, Unit Testing, Agile/Scrum*

- Architected a cross-framework UI integration layer using Web Components and React, enabling scalable component adoption across the organisation.
- Defined accessibility and internationalisation standards across platform components, ensuring WCAG compliance and multi-language support.
- Designed and delivered a service-graph visualisation system enabling engineers to explore API and service relationships.
- Led architectural migration efforts for legacy developer-portal features into a cohesive, scalable platform.
- Member of platform-level technical alignment groups, ensuring consistency between design, engineering, and architecture strategy.
- Reduced architectural debt through API standardisation, documentation improvements, and systematic component refactoring.

**Lead Software Engineer, Embed - Amsterdam, NL**

**Jul 2023 - Oct 2024**

*React, Next.js, NestJS, AWS, Webpack, Turborepo, Nx, Web Components, TypeScript, Playwright, Unit Testing, Agile/Scrum*

- Designed and owned the architecture of a framework-agnostic payment SDK using Web Components and TypeScript.
- Led creation of a white-label theming system using design tokens, balancing brand flexibility with compliance.
- Defined engineering standards, CI pipelines, and testing strategy across the frontend stack.
- Collaborated closely with backend teams to structure APIs, shape integration guidelines, and ensure smooth partner onboarding.
- Balanced product velocity with frontend security, cross-domain concerns, and regulatory requirements.

**Lead Software Engineer, Flink - Wrocław, PL**

**Apr 2021 - Jul 2023**

*React, React Query, Parcel, Vite, GraphQL, Serverless, Lerna, Firebase, GCloud, TypeScript, Jest, Agile/Scrum*

- Introduced micro-frontend architecture enabling independent deployment across product teams.
- Established shared UI libraries and frontend standards within a monorepo.
- Collaborated with product stakeholders to prioritise features based on measurable business impact.
- Mentored engineers and led frontend guild initiatives.
- Implemented delivery optimisation features reducing operational pressure and improving rider efficiency.
- Built internal operational tools for branch management and performance tracking.

**Senior Software Engineer, Sennder - Wrocław, PL**

**Mar 2020 - Apr 2021**

*Vue.js, Webpack, AWS, TypeScript, Unit Testing, Agile/Scrum*

- Developed a range of front-end applications using Vue.js, including brokerage, discovery, and chartering systems that streamlined company operations.
- Collaborated with cross-functional teams to identify requirements, set timelines, and ensure seamless integration of developed applications with existing systems.
- Introduced DataDog, enhancing monitoring and observability capabilities.

**Team Lead, Leadhome - Johannesburg, ZA**

**Mar 2018 - Feb 2020**

*React, GraphQL, Node.js, Styled Components, AWS, TypeScript, Jest, Agile/Scrum*

- Collaborated with cross-functional teams to align technical solutions with business goals, improving stakeholder satisfaction and project delivery.
- Successfully developed and launched a custom CRM to replace the outdated Salesforce system within nine months, setting the foundation for the company's growth.
- Scaled the development team from three to over twelve members, fostering a collaborative and productive working environment.
- Oversaw the successful launch of four products and numerous iterations on each, contributing to Leadhome's rapid growth and industry disruption.

**Intermediate Software Engineer, iflix - Cape Town, ZA**

**Feb 2017 - Feb 2018**

*Vue.js, Riot.js, Node.js, Serverless, AWS, TypeScript, Unit Testing, Agile/Scrum*

- Developed and integrated serverless architecture for the majority of our planned systems, ensuring scalability, efficiency, and cost-effectiveness.
- Collaborated with third-party payment providers (CSG) to enable seamless transactions and broaden the range of available payment options for customers in diverse regions.
- Delivered end-user systems as a front-end focused developer, creating user interfaces that are intuitive, visually appealing, and easy to navigate.
- Established weekly meetings with the global web development team to address the monolithic structure created due to the startup nature of the company, streamlining processes and promoting collaboration.
- Successfully implemented unique and impactful payment solutions, contributing to iflix's expansion and customer satisfaction in the African and Asian markets.

**Front End Developer**, The Gemini Solution - Cape Town, ZA

**Dec 2015 - Feb 2017**

*jQuery, knockout.js, D3.js, Node.js, GCloud, Firebase*

- Collaborated closely with outsourced designers to set expectations and timelines for interface development, ensuring efficient project delivery and high-quality user experiences.
- Developed an innovative survey tool based on industrial psychology research and user engagement, incorporating a variety of question types from free text to interactive games.
- Created several engaging 'brain' games using the Phaser framework, providing users with a unique and enjoyable survey-taking experience.
- Utilised D3.js to render metrics and graphs for the data collected, offering insightful visualisations to help users make sense of the information gathered.

**Front End Developer**, Platinum Software - Johannesburg, ZA

**Feb 2013 - Dec 2015**

*jQuery, knockout.js, Node.js, PostgreSQL*

- Designed and implemented visually appealing and functional user interfaces using Javascript (Knockout/jQuery), providing users with an intuitive and engaging experience.
- Configured and monitored server health, ensuring optimal performance and reliability for the company's web applications.
- Collaborated with team members to develop non-existent systems from the ground up, contributing to the establishment and growth of the company.
- Gained a broad range of skills and experience in various aspects of software development, from front-end design to back-end server management.

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## **Personal Projects**

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**Website** - <https://kayoh.dev/>

- Personal website featuring web experiments and links.

**Photography** - <https://unsplash.com/@kayoh>

- Publish royalty-free photographs and volunteer to photograph art, charity, and fundraiser events, combining technical and creative skills.

**Void Beneath** - <https://voidbeneath.itch.io/voidbeneath> (Unreal engine)

- Led project management and UI/gameplay development for a game jam project, exploring Unreal Engine tools and C#.

**The Quest of Helmet** - <https://kayoh.itch.io/helmet> (Phaser3)

- Developed a short side-scroller game in 6 hours for a game jam, focusing on rapid prototyping and clean UI implementation.

**Ebb & flow** - <https://github.com/MrOpperman/ebb-flow> (Phaser2)

- Built a mini-game where players decode fish directions/movement using arrow keys, inspired by Lumosity-style games. Highlights: state management, responsive input, and Phaser 2.

## Education & Courses

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### Formal Education

- **BSc Computer Science** (partial) | UNISA | 2014–2017
- **High School Diploma** | Abbots College Pretoria | 2007–2011

### Courses & Certifications

- **Blue Security Champions** | Secure Flag | 2025
- **Programme in Business Communication** | UNISA | 2017
- **Introduction to Internet and Web Design** | UNISA | 2013